



(12)

EUROPEAN PATENT APPLICATION

(21) Application number: 90301061.9

(51) Int. Cl. 5: B01L 3/00, C12Q 1/68

(22) Date of filing: 01.02.90

(30) Priority: 03.02.89 US 306735
17.04.89 US 339923

(43) Date of publication of application:
08.08.90 Bulletin 90/32

(84) Designated Contracting States:
BE CH DE DK FR GB IT LI LU NL SE

(71) Applicant: EASTMAN KODAK COMPANY
343 State Street
Rochester, New York 14650(US)

(72) Inventor: Schnipelsky, Paul Nicholas c/o
EASTMAN KODAK CO.
Patent Department 343 State Street
Rochester New York 14650(US)
Inventor: Seaberg, Leonard Joseph c/o
EASTMAN KODAK COMPANY
Patent Department 343 State Street
Rochester New York 14650(US)
Inventor: Wellman, Jeffrey Allen c/o

EASTMAN KODAK COMPANY
Patent Department 343 State Street
Rochester New York 14650(US)
Inventor: Hinckley, Charles Cullis c/o
EASTMAN KODAK COMPANY
Patent Department 343 State Street
Rochester New York 14650(US)
Inventor: Donish, William Harold c/o
EASTMAN KODAK COMPANY
Patent Department 343 State Street
Rochester New York 14650(US)
Inventor: Findlay, John Bruce c/o EASTMAN
KODAK COMPANY
Patent Department 343 State Street
Rochester New York 14650(US)

(74) Representative: Phillips, Margaret Dawn et al
Kodak Limited Patent Department Headstone
Drive
Harrow, Middlesex HA1 4TY(GB)

(54) Containment cuvette for PCR and method of use.

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EP
There are disclosed a cuvette (10, 100, 100C, 100D, 100E) and a method of use which prevent nucleic acid amplified by PCR technology from being released to the atmosphere, while still proceeding to a detection step to determine whether or not the nucleic acid is present. Detection reagents are either pre-incorporated into compartments (30, 30A, 30B, 32, 32A, 32B, 34, 34A, 34B, 36, 36A, 36B, 38, 38A, 38B, 40, 40A, 40B) and (132, 132A, 132B, 132C, 132D, 132E, 134, 134A, 134B, 134C, 134D, 134E, 136, 136A, 136B, 136C, 136D, 136E, 138, 138A, 138B, 138C, 138D, 138E, 139, 139A, 139B, 139C, 139D, 139E) in the cuvette or added after amplification. In the latter case, a check valve prevents amplified nucleic acid from being released. Transfer of liquids between compartments is achieved via the use of flexible compartment-walls and an external pressure source (60), or via pistons (113, 113C, 113D, 115, 115C, 115D, 184, 184C,

184E, 260) that are part of the cuvette and operate on the compartments as a piston within a piston chamber.

FIG. 1

